IN THE CLAIMS

1-20. (Canceled)

21. (New) A radiographic image conversion panel comprising:

a support; and

at least one photostimulable phosphor layer provided on the support,

wherein the layer has a film thickness of 50 μm to 1 mm, has not less than two luminescence wavelength peaks between 350 nm and 450 nm, and contains a photostimulable phosphor having an alkali halide represented by the following Formula (1) as a ground material,

$$M^1X \cdot aM^2X'_2{:}eA, A^{"} \qquad (1)$$

where the M^1 is at least one kind of alkali metal selected from a group consisting of Li, Na, K, Rb and Cs, the M^2 is at least one kind of bivalent metal atom selected from a group consisting of Be, Mg, Ca, Sr, Ba, Zn, Cd, Cu and Ni, each of the X and the X' is at least one kind of halogen selected from a group consisting of F, Cl, Br and I, each of the A and the $A^{"}$ is at least one kind of rare-earth element selected from a group consisting of Eu, Tb, In, Ce, Tm, Dy, Pr, Ho, Nd, Yb, Er, Gd, Lu, Sm and Y, and each of the a and the e represents a numeric value in a range of $0 \leq a < 0.5$ and $0 < e \leq 0.2$.

22. (New) The panel of claim 21, wherein a cyrstallite size of the photostimulable phosphor in the layer is not less than 90 nm.

23. (New) The panel of claim 21, wherein the layer is formed according to a vapor phase growth.

24. (New) A radiographic image conversion panel comprising:

a support; and

at least one photostimulable phosphor layer provided on the support,

wherein the layer has a film thickness of 50 μm to 1 mm, has not less than two luminescence wavelength peaks between 350 nm and 450 nm, and contains a photostimulable phosphor having an alkali halide represented by the following Formula (2) as a ground material,

$$M^{11}X_1 \cdot bM^{12}X_1{}'_2 \cdot cM^{13}X_1{}''_3 : fA_1 \qquad (2)$$

where each of the M^{11} and the M^{12} is at least one kind of alkali metal selected from a group consisting of Li, Na, K, Rb and Cs, the M^{11} and the M^{12} being different alkali metal from each other, the M^{13} is at least one kind of tervalent metal atom selected from a group consisting of Y, La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb and Lu, each of the X_1, the X_1' and the X_1'' is at least one kind of halogen selected from a group consisting of F, Cl, Br and I, the A_1 is at least one kind of rare-earth element selected from a group consisting of Eu, Tb, In, Cs, Ce, Tm, Dy, Pr, Ho, Nd, Yb, Er, Gd, Lu, Sm and Y, and each of the b, the c and the f represents a numeric value in a range of $0 \leq b < 0.5$, $0 \leq c < 0.5$ and $0 < f \leq 0.2$.

25. (New) The panel of claim 24, wherein a crystallite size of the photostimulable phosphor in the layer is not less than 90 nm.

26. (New) The panel of claim 24, wherein the layer is formed according to a vapor phase growth.

27. (New) A method for manufacturing a radiographic image conversion panel having at least one photostimulable phosphor layer, comprising:

forming the layer according to a vapor phase growth so that the layer has a film thickness of 50 μm to 1 mm and not less than two luminescence wavelength peaks between 350 nm and 450 nm,

wherein the layer contains a photostimulable phosphor having an alkali halide represented by the following Formula (1) as a ground material,

$$M^1X\cdot aM^2X'_2{:}eA, A'' \qquad (1)$$

where the M^1 is at least one kind of alkali metal selected from a group consisting of Li, Na, K, Rb and Cs, the $M^2$is at least one kind of bivalent metal atom selected from a group consisting of Be, Mg, Ca, Sr, Ba, Zn, Cd, Cu and Ni, each of the X and the X' is at least one kind of halogen selected from a group consisting of F, Cl, Br and I, each of the A and the A'' is at least one kind of rare-earth element selected from a group consisting of Eu, Tb, In, Ce, Tm, Dy, Pr, Ho, Nd, Yb, Er, Gd, Lu, Sm and Y, and each of the a and the e represents a numeric value in a range of $0 \leq a < 0.5$ and $0 < e \leq 0.2$.

28. (New) The method of claim 25, wherein a crystallite size of the photostimulable phosphor in the layer is not less than 90 nm.

29. (New) A method for manufacturing a radiographic image conversion panel having at least one photostimulable phosphor layer, comprising:

forming the layer according to a vapor phase growth so that the layer has a film thickness of 50 μm to 1 mm and not less than two luminescence wavelength peaks between 350 nm and 450 nm,

wherein the layer contains a photostimulable phosphor having an alkali halide represented by the following Formula (2) as a ground material,

$$M^{11}X_1 \cdot bM^{12}X_1{'}_2 \cdot cM^{13}X_1{''}_3 : fA_1 \qquad (2)$$

where each of the M^{11} and the M^{12} is at least one kind of alkali metal selected from a group consisting of Li, Na, K, Rb and Cs, the M^{11} and the M^{12} being different alkali metal from each other, the M^{13} is at least one kind of tervalent metal atom selected from a group consisting of Y, La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb and Lu, each of the X_1, the X_1' and the X_1'' is at least one kind of halogen selected from a group consisting of F, Cl, Br and I, the A_1 is at least one kind of rare-earth element selected from a group consisting of Eu, Tb, In, Cs, Ce, Tm, Dy, Pr, Ho, Nd, Yb, Er, Gd, Lu, Sm and Y, and each of the b, the c and the f represents a numeric value in a range of $0 \leq b < 0.5$, $0 \leq c < 0.5$ and $0 < f \leq 0.2$.

30. (New) The method of claim 29, wherein a crystallite size of the photostimulable phosphor in the layer is not less than 90 nm.